

# State of South Carolina: Network Description and Ambient Air Network Monitoring Plan Calendar Year 2009 Response to Comments Received

## Comments from the Georgetown County Ambient Air Monitoring Stakeholder Group

1. “Since the Georgetown Stakeholder Group first started meeting with DHEC in 2005, our primary message has been consistent: “Ambient air monitoring in Georgetown should be performed consistently with air monitoring in similar communities throughout South Carolina and neighboring states.” As discovered during our extensive monitor benchmarking effort in 2007, this is clearly not the case and comparison of data (as we discussed at the December 2007 stakeholder meeting) between Georgetown and similar cities is very difficult, if not impossible, as a result.”

*The Department acknowledges this comment. The objective of the monitor dictates its location and siting. In the case of Georgetown, it was determined that due to community concerns, a series of source-oriented monitors was established in order to assess impacts from various particulate sources south of the town.*

2. “The Stakeholders believe the recent “near miss” in 2004-2006 with PM<sub>10</sub> non-attainment was due to the placement of the Georgetown CMS monitor too close to an unpaved section of a state roadway. This situation resulted in thousands of hours of staff time being expended (both at DHEC and Stakeholder organizations) and was completely avoidable had a policy of consistent monitor placement been adopted by the Department when the issue was first identified in the early 1990’s.”

*As stated in the 2008 Response to Comments Received document, the Department continues to believe that the Georgetown CMS PM<sub>10</sub> monitor is a middle scale, source-oriented site which gives a representative picture of emissions in the area immediately surrounding the site. This site has allowed the Department to issue permits to some of the facilities with confidence because of the time resolution of the data. On numerous occasions, the Department has been able to identify issues with specific facilities and address those issues in a timely manner in order to avoid exceeding the standard. However, as the site is located in very close proximity to several local sources (e.g., truck parking, material handling, and facility related traffic), and not located near inhabited buildings or locations where the general public can be expected to be exposed to the concentration measured, its data is not appropriate for comparison to the NAAQS. Therefore, while the site is important to monitor the activities of the facilities, the Department will continue to seek alternative means to monitor PM<sub>10</sub> that can provide data of sufficient quality to meet monitoring objectives at this location.*

3. “The Stakeholders endorse the premise that all special purpose monitors should be operated no more than a few weeks at any one location (as is the practice in neighboring states). SPM’s should never be operated at the same location for more than two years. We understand that DHEC management has agreed with this principle, yet proposes continued operation of two SPM’s in the Georgetown area for more than 20 years at the same locations. We do not understand this apparent contradiction.”

*The Department disagrees that SPMs should only be operated at any one location for no more than a few weeks. Due to the dynamic nature of the atmosphere, and industrial processes, longer time periods are necessary in order to collect enough data to assess air quality. The Department has not operated SPMs in the Georgetown area for over 20 years. These monitors were re-designated last year to this status, and as previously stated, the Department commits to operating these monitors consistent with the design and intent of the Special Purpose Monitor definition in the Federal Monitoring Rule(40 CFR §58.20).*

4. "We agree with the establishment of a PM<sub>10</sub> monitor at the Beck Administrative Offices and encourage DHEC to expedite its installation. We also agree that using data from this monitor as "background data" for air modeling purposes is a significant improvement over the current situation. We have concerns that other similar communities have the benefit of background monitors that are located farther from the city center and as a result, benefit from lower background levels. We appreciate DHEC's decision to improve this situation that has become a key issue in several permitting decisions in the Georgetown area in recent months/years. We feel it imperative to establish this new monitor as quickly as possible and begin building the required database necessary for future dispersion modeling."

*Different objectives must be considered when making decisions on the placement of monitoring stations, chief among these being the protection of public health. We believe that the monitoring network in South Carolina, including the network in the Georgetown area, accomplishes this objective. Many other locations in the state offer the same challenges as Georgetown in that, because of limited resources and the proximity of air emissions sources to populated areas, it is difficult to satisfy our primary objective of protecting the public health while also providing data from "background" areas that is relatively unbiased from emissions sources that need to use this data in modeling assessments, i.e. the issue of "double counting." In order to insure we are protecting the public health, conservative background data is used as part of all facilities' modeling assessments, including those assessments for facilities in the Georgetown area. We believe the addition of the PM<sub>10</sub> monitoring station at the Beck Administrative Offices will provide background data that will be relatively unbiased by the nearby sources that will be using this data in modeling assessments and will allow for reasonable assessments in how individual facilities are affecting air quality at and beyond their boundaries.*

**Comments from SC Chamber of Commerce Environmental Technical Committee (ETC):**

1. "Because of the tightening of ambient air quality standards and the likelihood that this trend will continue, Chamber member companies are acutely aware of the importance of the monitoring network. Attainment status designation can have a dramatic economic impact on a given geographic region. The ability of existing facilities to expand or new facilities to locate in an area is many times directly related to these designations. The monitoring network also provides background ambient air concentrations for New Source Review evaluations. The ambient air monitoring network is therefore critically important for these reasons, in addition to serving as the foundation for many public health and non-regulatory environmental decisions."

*The Department acknowledges this comment.*

2. "The ETC appreciates the opportunities provided by SCDHEC to discuss the Plan and the summary information provided on the proposed changes. The ETC feels that SCDHEC did a very thorough job in evaluating and documenting the basic requirements for the network, and including many appropriate changes."

*The Department acknowledges this comment.*

3. "The ETC acknowledges the recent efforts of SCDHEC in establishing a new Greenville metropolitan monitoring site, as outlined in the current Plan. There was a general consensus that addressing ambient air quality monitoring concerns in this area was a priority. SCDHEC is to be commended for addressing this issue in a prompt manner."

*The Department acknowledges this comment.*

4. “The ETC requests that SCDHEC continue dialogue with the Georgetown area stakeholder group to address their concerns with monitor locations. There appears to be significant unresolved issues that are not yet adequately addressed in the Plan, as proposed.”

*The Department acknowledges this comment.*

5. “The ETC is concerned with the progress made in implementing the other changes previously identified in the current Plan. It is suggested that an overall schedule be developed for implementing these changes. This will facilitate interested stakeholder engagement and input. ETC member companies remain committed to assist in evaluating the appropriateness of individual monitor locations, and securing better sites as deemed necessary.”

*The Department acknowledges this comment. An implementation plan has been developed for the remainder of the items carried over from the 2008 Monitoring Plan. As was stated last year, selecting appropriate locations for monitoring is a complex task that takes time to accomplish and the Department commits to completing the implementation of all outstanding items as expeditiously as possible.*

6. “The ETC remains concerned about the SCDHEC policy allowing extended use of special purpose monitors (SPMs). We feel strongly that SPMs should only be used for very specific purposes and operated for no more than two years. This will ensure that the monitoring data can not be misused or misinterpreted.”

*As stated in the past, the Department is committed to operating these Special Purpose Monitors consistent with the design and intent of the Special Purpose Monitor definition in the Federal Monitoring Rule(40 CFR §58.20). The Department establishes SPMs as a flexible and economical way to meet various local monitoring objectives, such as exploring a possible air quality problem in response to citizen concerns.*

### **SC Pulp & Paper Association**

1. “SCPPA wishes to compliment DHEC for establishing a new monitoring site near downtown Greenville. This was arguably the highest priority CY2008 Network Plan. We understand two lower priority new monitoring sites have also been established.”

*The Department acknowledges this comment.*

2. “SCPPA has serious concerns about the apparent lack of progress to date on other major changes included in the CY 2008 Plan. By our unofficial tally, only 3 of 22 major network changes (excluding discontinuation of monitors) have been implemented. We understand there are numerous reasons for the current pace but given the importance of a high quality ambient air monitoring network, SCPPA recommends that a **prioritized implementation plan** be established with target completion dates for all agreed-upon changes. We recommend a **monthly progress report** be developed and made available on DHEC’s Laboratory Services web page.”

*The Department acknowledges this comment. An implementation plan has been developed for the remainder of the items carried over from the 2008 Monitoring Plan. The Department is currently assessing the best delivery method for presenting the implementation plan to the public via the internet. As was stated last year, selecting appropriate locations for monitoring is a complex task that takes time to accomplish and the Department commits to completing the implementation of all outstanding items as expeditiously as possible.*

3. “We would also suggest that DHEC include specific language in the 2009 network plan, clarifying DHEC’s intentions regarding the operation of Special Purpose Monitors (SPMs). Specifically, we would like confirmation of the Department’s position (as stated verbally in numerous stakeholder meetings) that **SPMs are short-term monitors that will be operated for a maximum of no more than two years** at any one location. It is also important to clarify how existing SPMs have been operated in excess of 10 to 20 years at the same location, and the CY 2009 Plan is recommending indefinite continued operation of these monitors in apparent contradiction with the stated policy.”

*SPMs are operated like any other monitoring site in the State in accordance with the criteria set forth in 40 CFR Part 58. 40 CFR §58.20 (a) and (b) state that the Administrator will not designate an area as nonattainment solely based on monitoring data if a SPM is discontinued before having 24-months of data. It is the Department’s intent to operate Special Purpose Monitors consistent with the design and intent of the Federal Monitoring Rule, concluding monitoring when appropriate, prior to collecting 24-months of data.*

4. “SCPPA continues to be concerned that DHEC is locating monitors closer to sources than other states, producing data that “appears” to be worse than it is for South Carolina’s air quality. This could (and almost has in two instances) resulted in very serious consequences for the state in terms of non-attainment determinations, economic development opportunities, and unwarranted government and public concern. SCPPA’s position is that federal guidance on monitor siting is clear and SC DHEC should adhere to the letter and intent of this guidance.”

*The Department disagrees with this comment. The Department stresses that the monitoring objective dictates siting of the monitor. The two monitors mentioned in the above comment (Cayce CMS and Greenville CHD) were specifically sited to measure source impacts and were sited in such a way to meet that monitoring objective.*

5. “SCPPA also has concerns that monitors that failed to pass the DHEC/Stakeholder site evaluation survey conducted in 2007 continue to produce a data record that is unsuitable for comparison to the NAAQS. The improvements to these sites or establishment of replacement sites should be given DHEC’s highest priority.”

*The Department has begun a comprehensive review of all monitoring sites within the State to assess siting conditions. As these assessments are completed, recommendations are made to management for action on issues brought forward. However, while the Department agrees with the need to evaluate the conditions of all sites, it disagrees that in all instances where siting concerns were noted during the stakeholder evaluation survey that a “data record that is unsuitable for comparison to the NAAQS” has occurred. As noted on page vi of the 2009 Network Description and Ambient Air Network Monitoring Plan, the Department continues to commit to meeting all of the “musts” and as many of the “shoulds” as possible when operating the ambient monitoring network.*

6. “SCPPA takes the position that the annual evaluation of Network Monitoring Plans is difficult without an objective report on the overall status of Ambient Air Quality in South Carolina. Many other states issue such comprehensive reports. We suggest the Bureau of Air Quality publish such a report periodically explaining the results of air monitoring, status of compliance with air quality standards, and showing long-term trends and projected levels based on future expected emissions and mandated reductions. Only when the “big picture” is understood, can a monitoring plan be developed that best meets South Carolina’s air quality needs.”

*The Department agrees that periodic reporting on the overall status of Ambient Air Quality is important to evaluating Network Monitoring Plans and has published reports. The most recent report looking at the time period covering 1995 – 2005 can be found on our website at <http://www.dhec.sc.gov/administration/library/CR-003800.pdf>. The Department encourages SCPPA to review this report and provide feedback to the Department as to how this report may better serve their needs.*

7. “With federal standards becoming more restrictive, SCPPA feels it is urgent that DHEC move as expeditiously as possible to make the agreed-upon changes and **begin building an air quality database using data from the new monitors at the earliest opportunity possible.**”

*The Department acknowledges this comment.*

#### **Comments from the National Parks Service**

1. “The ozone monitoring taking place at Cowpens National Battlefield is extremely important and should not be discontinued. Data from 1989 to the present is used by the National Park Service in numerous studies air quality and climate change studies. NPS scientists as far away as Colorado and Kentucky use information from this station to monitor trends. I have forwarded their letters of support gathered last year when DHEC proposed to close the station. Unfortunately at that time, I was not aware that this question would surface again.

Once I heard about and read the plan, I contacted both Scott Reynolds and Myra Reese to try to come up with a longer term solution for this issue. Although outside of the requirements mandated by the EPA, this ozone station provides valuable information for both state and national government agencies. I am happy to work with the EPA to see if there are programs that could fund this operation. I have collected Memoranda of Understanding from other locations where the EPA, state and park entities partner to insure this data is consistently collected. I spoke to Ms Reese and Mr Reynolds yesterday who proposed that the park could pay annually \$15,000 for the state personnel, travel and other costs associated with collecting this data. There is no way the park can cover this cost. It was not possible to come to an understanding yesterday, however we did agree that I will continue to work with Mr Reynolds to explore options for keeping the monitoring program in place and operating.

I request that the state continue monitoring for the 2009 calendar year, so we can find and agree to a long term solution. Thank you for asking for comments and providing this valuable service since 1989.”

*The Department acknowledges this comment. As noted in the 2008 Response to Comments Received document, the Department planned to operate the monitor for one year and invited the National Park Service to discuss funding opportunities to continue the operation of this site. While the Department understands that the data generated by this monitor is important in research activities, dwindling resources have forced the Department to focus monitoring in areas required by Federal regulations.*

2. “I'd say you all still have need for the data. In speaking with staff from the National Park Service - Air Resources Division, it seems the information that you submitted last year still applies, the park service would still like to have the monitor in place, and you've already had one exceedance of the NAAQS standard as of April of this year (see <http://www.nature.nps.gov/air/Monitoring/exceed.cfm>). With an exceedance so early in the season, it is likely there will be more. The standard is based on the 4th high, 3-yr 8-hr ave, so we can't say whether the area will end up being a nonattainment area, but high readings this early could be an indicator.

I would strongly urge the State to retain this monitor.”

*The Department acknowledges this comment. The exceedance that is referenced in the above comment was due to a controlled burn conducted by the National Park Service at the Cowpens site. The controlled burn included the woods adjacent to the Cowpens site and artificially raised ozone levels. The Department is currently drafting an Exceptional Events justification document to seek concurrence from EPA so this data value will not be used for future attainment designations. While the Department understands that the data generated by this monitor is important in research activities, dwindling resources have forced the Department to focus monitoring in areas required by Federal regulations.*

3. “I’m the Inventory & Monitoring coordinator for a group of 14 National Park Service units including Cowpens National Battlefield in SC. We are just beginning to monitor foliar injury from ozone and would like to make a case for the continuation of this monitor. Based on biosite data from 1999-2002, maps compiled by USFS show this area to be a high risk of probable ozone injury to forests (USFS-General Technical Report NRS-20, December 2007). Data from this monitor provides us with the information needed to determine potential injury levels, which can trigger onsite monitoring of ozone sensitive plants. It would be very useful to us if the monitor could continue at Cowpens.”

*The Department acknowledges this comment. While the Department understands that the data generated by this monitor is important in research activities, dwindling resources have forced the Department to focus monitoring in areas required by Federal regulations.*